CERS UPDATE
By G. Terastvadsadrian

The California Environmental Reporting System (CERS), which requires electronic reporting of all CUPA-related programs to the State database, continues its preparation as it gets closer to its implementation on January 1, 2013. The Health Hazardous Materials Division (HHMD) has received a 25 percent advance on its CERS grant and consequently has ordered equipment to transition to electronic reporting. The Data Operations Unit (DOU), which is a critical component of the transition, has already received some equipment deliveries and a complete upgrade of their computer systems. Equipment for public outreach training has been received, and further deliveries of equipment are expected. A number of library locations have also been reserved for public outreach training and a sign-up calendar has been provided on the Department's web site. Public outreach training sessions have started in August 2012 in the City of Torrance and are going on in other locations through February 2013.

An electronic field inspection system (eFIS) for HHMD inspection staff will be implemented as part of the Compliance Monitoring and Enforcement component of the transition to electronic reporting. The launching of eFIS will coincide with the upgrade of Envision Connect to version 4.6. Despite significant delays in the procurement of equipment we anticipate launching a field inspection pilot program in February 2013. The pilot program will involve an inspector from each field office (who will later become trainers for their district offices), three TSU staff and one IMD staff. This team will first receive training through the product vendor prior to the commencement of the field inspection pilot program. The purpose of the pilot program will be to identify and resolve problems, and identify training needs. In preparation for the use of eFIS, desktop computers of all technical staff will be replaced with convertible tablet PCs and connection to all peripheral and network devices will be through a docking station for each computer. CERS and the transition to electronic reporting continue to be an evolving process presenting its unique challenges, but promises to deliver a more consistent, efficient and consolidated approach to Unified Program reporting.

New Employees

The new clerical staff in the Administration Planning Section are from left to right: Lin Chau, Kathy Gomez, Meena Aldouri, James Ealey Jr., Shaquinta Drummer, Monica Barraza and Luis Mora.

IN THIS ISSUE

Bill Jones
Chief
Health Hazardous Materials Division

Haz Mat Release is a collective effort to foster an exchange of information. We welcome any questions or comments.

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Haz Mat Release

THE OFFICIAL NEWSLETTER OF THE LOS ANGELES COUNTY FIRE DEPARTMENT HEALTH HAZARDOUS MATERIALS DIVISION

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Volume 12

HHMD 30th Anniversary– Looking Back

This Department's Health Hazardous Materials Division (HHMD) had a humble beginning in the early 1980s. For five to ten years prior to 1982, in L.A. County, California and throughout the United States, generators of hazardous waste had repeatedly demonstrated an inability or unwillingness to properly handle and dispose of a wide variety of chemical wastes. Their mishandling resulted in numerous incidents involving fires, chemical releases into communities and groundwater, air releases and major transportation tie-ups.

The Los Angeles County Board of Supervisors saw the need for local involvement and effective July 1, 1982, approved a proposal to form a new group within the Department of Health Services to inspect and regulate generators of hazardous waste. The new Hazardous Waste Control Program (HWCP) was formed under the Environmental Health Division in the Department of Health Services. Of the original 12 inspectors who started this program, HHMD Chief Bill Jones, Assistant Chief Walter Uroff and Supervising Hazardous Materials Specialist Bruce Wojcik are still working in the program.

At that time, the original 12 inspectors had limited experience working with chemicals or industrial processes. After a short training, staff were sent to conduct inspections with a focus on hazardous waste handling and disposal practices. At the same time, the new inspectors were immediately thrust into a world where complaints were numerous, hazardous materials accidents and releases were occurring on a daily basis, and inspections were revealing a world of major non-compliance (i.e., enforcement) issues. Because of media and political attention to the problems in Los Angeles County, every major case or incident was a huge issue, requiring resources and attention. Soon after the original 12 came on board, management began the process to request more inspectors to handle the overwhelming workload.

Staff were assigned geographical areas of the County to conduct surveys and inspect businesses to determine if they generated hazardous waste and how they were handling, storing, and disposing of the waste. Responses to spills and illegal disposals were completed by pairs of inspectors with minimal personal protective equipment and using one's personal vehicle. Businesses generating and disposing hazardous wastes were issued permits with fees starting at $52. The reaction to the new permit and fees, once they were mailed out, was immediate and loud. Inspectors were occupied answering phone calls from protesting business owners for months afterwards.

During the 1980s, the HWCP grew and eventually became known as the Hazardous Materials Control Program (HMCP). Incidents involving fires and releases of hazardous materials in L.A. County and throughout the world continued. The Bhopal, India release, killing 2,000 victims, occurred in 1984. Numerous laws and regulations were passed at the State and federal levels which also led to programs and staffing increases at all levels of government. Certain hazardous waste violations became felonies, the "strike force" concept started in LA County, penalties and fines included a "split" to local law enforcement entities including HMCP, and numerous local incidents led to staff increases in the HMCP. Some of the major events that occurred included ROC RIC in Sun Valley where a chemical wholesale operation caught fire and responders including HMCP staff, had no clue what was inside their warehouse. This led to State laws requiring businesses to inform first responders of their chemicals onsite and emergency ***(See 30th Anniversary, page 11)***

Damage Inspection Training
By William Westcott

Whenever there is a fire or a natural disaster where damages to structures or properties are involved, Damage Inspection (DINS) teams are dispatched to the field to make a thorough and accurate assessment of the extent of damages of affected properties. The data gathered from this inspection is used by our Department to inform the public and those who are evacuated from the affected areas, the extent of the fire damage to their homes and properties. Inspection reports complete with global positioning data, photos, description of the damage and estimated property losses are vital information that State, Federal and other government agencies critically need for policy and decision making. The inspection reports provide them with the necessary data to extend other services, relief or assistance to the affected areas. The Health Hazardous Materials Division's DINS personnel are also responsible for inspecting and overseeing the conditions of hazardous materials and hazardous waste that may have been affected by the fire so that they will not become a threat to public safety and the environment. DINS inspections ensure that they are properly identified, contained and managed.

To maintain proficiency in this assignment, the Health Hazardous Materials Division (HHMD) held its annual DINS training on June 26, 2012, at Camp 2. This training is mandatory for all HHMD technical staff who participate in DINS assignments. The training is based on the curriculum of Firescope's Damage Inspections Technical Specialist Class. The DINS curriculum was presented by DINS Committee members Bill Westcott, Karen Codding, Teresa Quiaoit, George Terastvadsadrian, Mike Uyehara, outgoing Committee member Fernando Florez and Firefighter Specialist Jerry McClelland. Training participants reviewed the Incident Command System (ICS) and DINS activation and deployment procedures. The use of Global Positioning System (GPS) devices and mobile radios were demonstrated.

A total of 39 HHMD Hazardous Materials Specialists participated successfully in this training.

Compressed Gases Reporting
By Bruce Wojcik

Assembly Bill 408 was passed into law on October 8, 2011, and amended Chapter 6.95 of the Health & Safety Code changing the hazardous materials inventory reporting of certain compressed gases. The reporting threshold was raised from 200 cubic ft. to > 1000 cubic ft. at standard temperature and pressure for compressed gases that are hazardous only for simple asphyxiation and pressure release. The gases in this category include argon, helium and nitrogen. Gases which would not meet the criteria for higher reporting include acetylene, carbon dioxide, fluorocarbons and hydrogen. Cryogenic gases would also be excluded.

The statewide Hazardous Materials Business Plan Technical Advisory Group (HMBP TAG) developed guidance to standardize compressed gases reporting units. Compressed gases are stored in a liquid or gas state while under pressure. The HMBP TAG considers the term "compressed gas" as used in the H&S code Section 25503.5 (a)(1)(B) to include compressed gases, liquefied gases, refrigerated liquefied gases and dissolved gases.

To determine whether a compressed gas meets or exceeds the applicable reporting threshold, a business must convert other units of measure to cubic feet at standard temperature and pressure. When completing the "Units" data element of the inventory, use the unit of measure that is most appropriate for the physical state of the hazardous material in the storage container (i.e., gallons, pounds, cubic feet or tons). NOTE: If the material is a federally defined Extremely Hazardous Substance (EHS) and also a Regulated Substance, all amounts must be reported in pounds. If the material is a mixture containing an EHS, report the units that the material is stored in, either in gallons, pounds, cubic feet, or tons.

The following examples indicate the appropriate unit of measurement based on the above guidance:

- Liquefied petroleum gas (propane) —gallons
- Chlorine gas—pounds or tons (due to chlorine being an EHS).
- Argon, helium, hydrogen, carbon dioxide gas—cubic feet
- Cryogenic liquids—gallons

HHMD 30th Anniversary - *Continued from page 1*

contact information and to perform training and planning processes in case of an emergency. The infamous Grow Group incident in Commerce was a chlorine release that led to an evacuation of 25,000 downwind residents. This led to State laws to have high risk facilities do special prevention planning processes that became known as the California Accident Release Prevention Program. Underground storage tanks (USTs) throughout the country were found to be leaking fuels into adjacent soils and groundwater. This led to major legislation to control UST's and mitigate contamination in California.

During the 1990s, the HMCP was transferred into the Fire Department with all its personnel and resources to become the HHMD in the Prevention Bureau. Many events occurred in this decade that involved major HHMD resources including the civil unrest of 1991, the 1993 Northridge earthquake, the 1993 Malibu fires and the formation of an entity that became known as a CUPA, or Certified Unified Program Agency. This regulatory structure, which includes six distinct and separate hazardous materials program elements is the umbrella under which HHMD operates its regulatory function.

The 2000s was the decade of 9/11 of course, and HHMD is a major player in preparing for any terrorism threat. In the weeks following 9/11, HHMD responded to hundreds of "white powder" calls. Another trend seen in this decade was the development of major civil statewide enforcement cases. In these cases, typically involving big box stores and other multijurisdictional entities, a consortium of prosecutors would file cases that led to many multi-million dollar settlements. The effects were significant not only in the monetary penalties, but also in the compliance efforts and programs seen at stores not only throughout the country but also internationally.

Congratulations to all current and previous hazardous materials specialists working to protect the public health and safety and the environment!!

HHMD Retirees

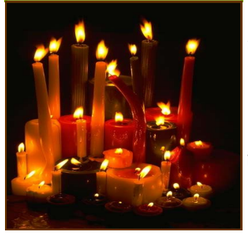
KENJI MAYEDA
By Fernando Florez

Kenji Mayeda retired in March 2012 after 33 years of dedicated service with the County of Los Angeles. Kenji began his career with Los Angeles County as an Environmental Health Inspector in the Department of Health Services. In 1998, Kenji came to this Department as a Hazardous Materials Specialist in the Paramount inspection office of the Health Hazardous Materials Division (HHMD). After serving six years in the Inspection Section, Kenji worked in the Administration/Planning Section, Cal-ARP Unit, and in the Investigation Unit.

LINDA SCHWEIZER
By Victor Nanadiego

Linda Schweizer retired on March 31, 2012 after 29 years of service (four years with Los Angeles City and 25 with Los Angeles County). Linda started working for Los Angeles County in 1987 as an Environmental Health Inspector for the Los Angeles County Health Department in the Central District. In 1995, she transferred to this Department's Health Hazardous Materials Division in the Central District Inspection Office. On March 2005, Linda transferred to the Emergency Response Section where she stayed until her retirement. Linda enjoyed working for the Division. She learned a lot everyday and always had a great feeling when she got home because she felt her work made an impact to the environment and to the safety and welfare of the public.

IN MEMORIAM



We honor and mourn our beloved colleague who passed away on July 19, 2012 after a long valiant battle with cancer.

ELLEN RUELAS was assigned to the Southeast District Inspection Office from 2007 to 2012. Her passion was first for her family and second to serve and protect the citizen of L.A. County. She will be missed, but never forgotten.

Daily Exercise
By Camille Monje

Making exercise a part of your daily schedule has many benefits . Not only is exercising a great way to stay fit and lose weight, it can also improve your mood, help you sleep better and boost the body's immune system by increasing the circulation of natural killer cells that fight off viruses and bacteria.

It's essential to make time for a daily exercise plan. Even just 20 minutes of exercise per day will bring noticeable results. If you can't exercise every day, try to do it three to five days per week. Some exercise is better than none, more exercise is generally better than less and no exercise can be disastrous.

Begin your exercise session with stretching to increase flexibility, prevent injury, and increase your range of motion. Participate in aerobic activities like cycling, swimming, running or brisk walking. Strength training using light weights will provide additional benefits. Be sure to check first with your physician before engaging in any exercise.

Most of us work long hours and find little or no time in our busy day to exercise. The key is to commit a designated time to do some moderate physical activity that you enjoy. Soon you may find that you will not be able to stop going to exercise and the regimen will become easier and even enjoyable every day. Here are a few helpful tips to get you started and keep you going on an exercise plan:

- Set an alarm to remind you daily of your exercise plan.
- Have a walking partner. A walking partner will make you accountable and keep you motivated.
- Every step counts. Park your car a distance away from your workplace so you can get some extra walking exercise.
- Jumping rope for 15 minutes can work wonders for your heart.
- Conduct chair exercises for 15 minutes especially if you spend more time working in the office.
- Use resistance bands while sitting at your desk.
- Count your steps with a pedometer. Set a goal and you will be amazed at how fast your steps add up.

All you have to do is take the first step!!!

Riding a Bike to Work
By Michael Uyehara

With gasoline prices ranging between three to five dollars a gallon and new cars costing tens of thousands of dollars, it's no wonder that some of you are thinking, "I should ride a bike to work." The cost savings, exercise benefits and the lure of a shiny new bicycle can easily influence a person to use this environmental friendly alternative mode of transportation. But as any seasoned bike rider will tell you, there are inherit dangers with riding a bicycle in the street. Unlike sitting in the safety of a car with the comforts of air conditioning and a stereo system, a bicycle offers very little protection against cars, trucks, the elements and a host of other things bicycle riders encounter.

When bicycling to work, even the simple things like carrying your lunch, your laptop or a change of clothing becomes a problem that requires planning. Do not forget also that the route that you normally drive may not be suitable for a bicycle. However as scary as it may seem, there are many people who successfully ride bicycles for transportation, recreation or for competitive purposes.

Here are a few tips that have helped me to travel many miles safely:

- Obey all traffic laws.
- Always wear proper safety equipment.

- Keep your head up and always scan the road in front of you and use your peripheral vision.
- Look out for car drivers opening their door in your pathway.
- Do not ride with ear phones listening to your favorite music. It is important to hear the traffic around you.
- Check your bike regularly and keep it in good condition.
- Learn how to fix a flat and carry the appropriate tools and supplies for repair.
- Have a plan in case you are unable to continue riding.

There are many other recommendations and tips available on the internet. A search of bicycle safety tips will bring up numerous sites with additional information including "Ten Ways to Not Get Hit" found at http://BicycleSafe.com.

BILL'S CORNER

Where are we headed? What is new on the horizon? What are the major issues we face now and in the future? These questions have been asked repeatedly over the years and even more recently in many different forums and quarters. Strategically, one must engage in this type of analysis to plan and prepare appropriately. At this time, there is one area that has taken a front row seat in making our decisions - budgets and funding. Governments at all levels are being scrutinized and funding issues have driven reductions in many sectors. Some cities have recently made the dramatic decision of filing bankruptcy to carry them through difficult years.

At the same time, we are challenged with the fact that our "baby boomer" workforce will soon be leaving in large numbers. In the Health Hazardous Materials Division (HHMD), we have seen a steady and progressive departure of our senior staff and the expectation is that many of the current senior staff will be departing in 3-5 years. What does this mean? How will those that remain continue with the good work in the absence of historical or legacy information? What are we doing to prepare for their departure; specifically, what are our succession plans?

At the State level, budgets and funding continue to be a major issue for all involved, from politicians to the various State departments, offices, agencies and boards. What are the key players thinking and doing to address the same concerns we are looking at? I've posed a lot of questions that cover a broad spectrum of opportunities and challenges. Let me try to list some of the efforts and initiatives being discussed, considered and implemented:

- Our staff has been involved with the review and update of a large number of policies and procedures, standard operating protocols and HHMD executive advisories. These changes and improvements address the way we do business and streamline operations to increase efficiency.
- Our fee model is currently being reviewed by an outside vendor for the first time since the early 1990's when DMG conducted a review of how we calculated fees. The report hopefully will bring clarity and the recommended changes will be sustained for years to come.
- At a recent meeting with Debby Reynolds, Director of the Department of Toxic Substances Control (DTSC), a fundamental question was asked as to whether or not the regulatory scheme in California, specifically "California Only" hazardous waste, was effectively accomplishing what was originally intended. With a significant quantity of this waste leaving the State, what are our rules and regulations accomplishing in protecting our citizens and environment.
- Another question recently posed by Brian Johnson, DTSC Deputy Director, in charge of Enforcement and Emergency Preparedness, is how to allocate dwindling and limited resources throughout the State. A concept has been resurrected whereby inspection and enforcement efforts are prioritized based on relative risk, compliance history, and other factors that place more emphasis on problematic or high risk facilities and operations.
- With the passage of AB 1566, the Office of the State Fire Marshal will soon be playing a major role in implementation of the above ground storage tank program. This new role will be further developed in conjunction with the formation of an advisory committee and will undoubtedly be followed by new oversight fees applied to businesses as a "surcharge" on the Unified Program invoices.
- A major rewrite of Health and Safety Code, Chapter 6.95, Article 1 has been underway as an initiative of the CUPA Forum Board. This rewrite will incorporate updates to implement the electronic reporting system, reorganization and consolidation, elimination of outdated statutes, and consideration of other amendments that will hopefully improve implementation and enforcement.
- Statewide enforcement cases continue to prove effective in consolidating enforcement efforts and resolving corporate non-compliance with dividends to participating agencies in the form of training and CUPA Forum Trust funding.
- The California Electronic Reporting System (CERS) will become official January 1, 2013, and will initiate a major change in both the way CUPA inspectors do business and most significantly the way data is collected, processed and disseminated. With access to violation specific information, annual reports to the State and USEPA will become "automatic" and retrievable through the CERS system. Implementation, however, will undoubtedly be a huge challenge with "bugs" and problems expected. At the same time, inspectors will transition to electronic tablets and paper exchanges and files will continue to be minimized. These tablets will replace desktop computers and will be "docked" when returning from the field.

Recently, a group of representatives from federal, State and local agencies met to develop a new "strategic plan" for the unified program. In this process a number of goals and strategies were identified to address a variety of identified challenges. Many of these goals are consistent with the efforts by this Division and Department: to streamline and improve consistency; communicate more effectively to stakeholders; prioritize workloads based on risk; improve training and delivery mechanisms; develop outreach and business assistance tools; and improve utilization of technology.

While all the changes above continue to shape our future, staff are reminded on a daily basis of the role we play to protect public health and safety and the environment. Each day, as we inspect, regulate, educate, mitigate, respond and enforce, we are reminded that our chosen profession continues to evolve and change, calling for us to be diligent in continuing our education and training efforts to maintain our competence. The newly created Unified Program Training Framework being coordinated by the California CUPA Forum Board and Cal EPA focuses on a concept that will be foundational for all future training and hiring practices. This framework will be integrated into a statewide measure of qualifications and competency across the board into all the various disciplines and expertise necessary to perform as a hazmat specialist.

With all the above, the future is dynamic, exciting and sure to create challenges to accomplish our goals and objectives. This will require a commitment to our profession, an interest by future employees at the high school and college level and new leadership to shape and plan for the future. What a great way to spend your career!

The Hazards of Food Grade Chemicals
By Jojo Comandante

How can food grade chemicals be hazardous? After all, just by definition, these substances meet the minimum standards to qualify as fit for human consumption or to be permitted to come in contact with food. The minimum standards are defined by the U.S. Food and Drug Administration (FDA). Regulations are contained in Title 21 CFR (Code of Federal Regulations). Certain chemicals can be manufactured in a way that renders them unsafe to eat, but the food grade version is manufactured differently so it does not harm people. For example, supermarket produce can be coated with a food grade wax.

Under the FDA's implementing regulations, the use of chemicals as a food additive may be generally recognized as safe through scientific procedures, a substance used in food before 1958, or through experience based on common use in food.

Under 21 CFR 170.30(b), general recognition of safety through scientific procedures requires the same quantity and quality of scientific evidence as is required to obtain approval of the substance as a food additive and ordinarily is based upon published studies, which may be corroborated by unpublished studies and other data and information.

Under 21 CFR 170.30(c) and 170.3(f), general recognition of safety through experience based on common use in foods requires a substantial history of consumption for food use by a significant number of consumers.

Granted that food grade chemicals meet stringent requirements under the law, their inherent physical and chemical properties remain. Corrosive food grade chemicals remain corrosive and reactive food grade chemicals remain reactive. Used extensively by the soft drink industry, concentrated food grade phosphoric acid is corrosive to the skin and should be handled as such. Gloves and other personal protective equipment should be worn when using or handling this material. Some food grade lubricants can be flammable. The U.S. Department of Agriculture (USDA) sets the requirements for these lubricants.

Emergency Response Unit inspecting bags of calcium oxide in Southgate.

Chemicals that are inherently non-hazardous can also be food grade. Diatomaceous earth (DE) is used widely in pest control and maybe classified as food grade or non-food grade. Non-food grade DE is used in pool filters. Food grade DE is used in grain to control worms and other bugs or parasites and is completely non-toxic.

In one incident called in to the Emergency Response Coordinator (ERC), there was a fire at a solid waste transfer station involving bags of food grade calcium oxide. This form of calcium oxide is used as an additive to nutritional supplements, as in vitamin and mineral pills. However, calcium oxide is inherently reactive. It reacts with water to form calcium hydroxide and generates a lot of heat. Temperatures could go as high as 800 ºC. Ignition of nearby combustible materials could occur, and apparently did, at this incident. Further investigation showed that the food grade calcium oxide was thrown as regular trash and combined with wet organic wastes that resulted in the fire. The mitigation of the incident included the physical separation of the calcium oxide from wet materials to stop the reaction and the resulting generation of heat.

"Food grade" does not necessarily mean non-hazardous. Food grade chemical wastes should be evaluated for their hazard characteristics before deciding on how to handle and dispose them.

Nitrous Oxide is No Laughing Matter
By Nancy Parson

On June 15, 2012, the Emergency Operations Section of the Health Hazardous Materials Division responded to an explosion that killed one person and left three others injured. The blast tore through the walls of a business establishment adjoining a small market in the 2500 block of South Grand Avenue, Los Angeles at about 6:30 pm. The explosion occurred during a transfer of nitrous oxide from a large compressed gas cylinder into a smaller one. This explosion could have been due to heat from the expanding gas transfer and oily tank connector.

Emergency Response Unit looking for the source of explosion

Nitrous oxide is a colorless, non-flammable gas, with a slightly sweet odor and taste. It is used in surgery and dentistry for its anesthetic and analgesic effects. It is known as "laughing gas" due to the euphoric effects of the inhalant, a property that has led to its abuse as a recreational drug. It is also used as an oxidizer in rocketry and in motor racing to increase the power output of engines. At elevated temperatures, nitrous oxide is a powerful oxidizer similar to molecular oxygen. It is an unstable gas that when mixed with air, could form an explosive mixture. Staff should be aware that the illicit use and handling of nitrous oxide could create similar situations. Emergency Operations is looking into the use and handling of nitrous oxide with other concerned law enforcement agencies and will report back recommendations.

Hazard Assessment: Impacts of Chlorine Vapor Clouds on Sensitive Public Receptors
By Michael Whitehead

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Water treatment companies provide safe water to many residential communities for use in kitchens, bathrooms, landscape irrigation, washing cars, and filling backyard swimming pools. In order to remove microbial organisms and contaminants, water treatment companies use either chlorine or sodium hypochlorite to disinfect the water. Between these two disinfectants, sodium hypochlorite has a lower level of toxic inhalation hazard than chlorine, a greenish yellow gas with a pungent suffocating odor. Water treatment companies that use chlorine rather than sodium hypochlorite include a hazard assessment and an emergency response plan in its risk management plan.

The emergency response plan is used as a tool not only for coordinating with local emergency responders, but also for identifying populations that could be adversely affected by a chlorine vapor cloud in the event of an accidental release. The information is derived from hazard assessment, a scientific way of studying the toxic inhalation hazard of chlorine on a community of dwellings, schools and nursing homes that exist in different zones of toxic exposure. While conducting a hazard assessment, the water treatment company considers atmospheric conditions of the neighborhood, the properties of chlorine, and the type of release scenario at the process. The U.S. Environmental Protection Agency (EPA) classifies the types of zones of toxic exposure using the Acute Exposure Guideline Levels (AEGL). AEGLs represent threshold exposure limits for the general public and are applicable to emergency exposure periods ranging from 10 minutes to eight hours. The AEGLs for chlorine are as follows:

AEGL-1 is the airborne concentration, expressed as parts per million or milligrams per cubic meter (ppm or mg/m3) of a substance above which it is predicted that the general population including susceptible individuals, could experience notable discomfort, irritation, or certain asymptomatic effects. However, the effects are not disabling and are transient and reversible upon cessation of exposure.

AEGL-2 is the airborne concentration (expressed as ppm or mg/m3) of a substance above which it is predicted that the general population, including susceptible individuals, could experience

irreversible or other serious, long-lasting adverse health effects or an impaired ability to escape.

AEGL-3 is the airborne concentration (expressed as ppm or mg/m3) of a substance above which it is predicted that the general population, including susceptible individuals, could experience life-threatening health effects or death.

Because any facility having a process that uses regulated substance above its threshold quantity is required to develop their hazard assessment, the following free software tools developed by the EPA allow water treatment companies to complete their hazard assessment for chlorine:

- RMP*Comp allows users to determine the distance from the chlorine cylinder to a toxic endpoint in their neighborhood.
- Areal Locations of Hazardous Atmospheres (ALOHA) generates AEGL zones where toxicity is predicted to exceed a level of concern.
- Marplot shows the zone of toxic endpoint and the AEGL zones on maps, and it also displays the location of dwellings, hospitals, nursing homes, schools and other vulnerable locations.
- Landview software displays the number of people who live within the zone of the toxic inhalation hazard of chlorine so that the water treatment company may know who to send evacuation or shelter-in-place notices in the event of an accidental release of chlorine.

The hazard assessments and emergency response plans are evaluated during inspections by the Cal-ARP inspectors to ensure that the facilities and local emergency responders can protect the surrounding communities from toxic vapor clouds should it ever occur.

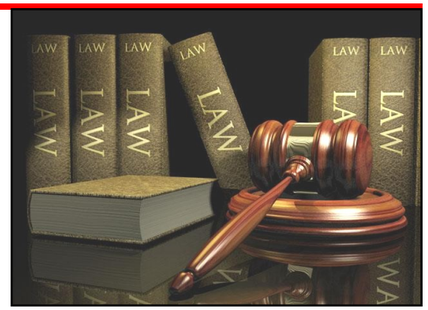
Promotion

Congratulation to Karen Codding on her promotion as Assistant Chief of the Special Operations Section. Ms. Codding worked in the Department of Public Health as a registered environmental specialist before transferring to the Health HazMat Division of the L.A. County Fire Department in 1998. She worked in the Emergency Operation Section before becoming a Supervising HazMat Specialist for the Admin/Planning Section. She later transferred to the East District Inspection Office before her promotion.

AEO Penalty Box
By Fernando Florez

The following companies were issued Administrative Enforcement Orders (AEO's) this past fiscal year. Staff from the different sections worked as a team and collaborated in the cases that were adjudicated. The Class I violations were observed by inspectors, investigators and first responders while conducting routine inspections or responding to hazardous materials spills. The following companies were brought into compliance:

- **Durham School Services** in Norwalk was fined for failure to maintain a facility to prevent a release of hazardous waste, failure to properly label and keep hazardous waste containers closed and exceeding accumulation storage periods. *Case submitted by J. Rooney.*
- **Verizon, Inc.** in Palmdale settled for the improper disposal of lead paint chips unto the ground. *Case submitted by P. Biren.*
- **Sigma Plating** in Industry was fined for failure to maintain a facility to prevent a release of hazardous waste, exceeding accumulation storage periods and failure to report a release of hazardous waste. *Case submitted by K. Mayeda, E. Bald and M. Bravo.*
- **Ecolab, Inc.** in Industry settled for failure to maintain a facility to prevent a release of hazardous waste and failure to meet tank standards. *Case submitted by E. Bald and M. Bravo.*
- **George Chevrolet** in Bellflower settled for failure to maintain a facility to prevent a release of hazardous waste and for the unauthorized disposal of universal waste to a household roundup event. *Case submitted by K. Smith.*
- **SBM Precision Products, Inc.** in La Puente settled for failure to properly label containers, illegal disposal of hazardous waste grindings to the trash, and for exceeding accumulation storage periods. *Case submitted by E. Bald and M. Bravo.*
- **Marchem Technologies, LLC** in Carson settled for failure to prevent a release of hazardous waste and for exceeding accumulation storage periods. *Case submitted by E. Bald and M. Bravo.*
- **Nalco Chemical, Inc.** in Carson was fined for failure to meet tank standards. *Case submitted by E. Bald and M. Bravo.*
- **Connector Plating Corp** in Los Angeles was fined for unauthorized treatment of hazardous waste, failure to meet tank standards and exceeding accumulation periods. *Case submitted by T. Zehdar.*
- **Allfast Fastening Systems, Inc.** in Industry was fined for failure to meet tank standards. *Case submitted by E. Bald and M. Bravo.*
- **Mag-Tran Equipment Corp** in South El Monte was fined for failure to prevent a release of hazardous waste. *Case submitted by J. McCarron.*
- **Roben's Truck Repair** in Santa Clarita settled for failure to prevent a release of hazardous waste and for failure to obtain an EPA ID number. *Case submitted by D. Yniguez.*
- **Downey Auto Wholesale** settled for failure to prevent a release of hazardous waste. *Case submitted by P. Biren.*



- **Parkhouse Tire, Inc** in Bell Gardens settled for the unauthorized disposal of hazardous waste grindings to the trash. *Case submitted by G. To.*
- **Artesia Ice Service, Inc.** settled for the unauthorized disposal of zinc contaminated sludge to a landfill. *Case submitted by E. Bald and M. Bravo.*
- **Liberty Metals** settled for processing appliances without Dept. Toxic Substances and Control's approval as a Certified Appliance Recycler. *Case submitted by G. To.*
- **Moog, Inc**. in Torrance was fined for failure to meet tank standards. *Case submitted by S. Brodsky.*
- **Yolanda's Plating** in Los Angeles settled for failure to prevent a release and for exceeding accumulation storage periods. *Case submitted by A. Ng.*
- **Dolphin Engineering, Inc.** in Los Angeles settled for unauthorized disposal of hazardous waste polishing dust to the trash. *Case submitted by G. To.*
- **Ross Name Plate Company** in Monterey Park settled for failure to prevent a release of hazardous waste. *Case submitted by J. Ly.*
- **R & E Plating Corp.** in Los Angeles settled for failure to prevent a release, illegal disposal of waste to the ground and for exceeding accumulation storage periods. *Case submitted by S. Townsend.*
- **B & C Plating Corp.** settled for failure to prevent a release of hazardous waste. *Case submitted by A. Mico and J. Ly.*
- **AAA Truck & Auto Wrecking** in Lancaster settled for failure to maintain a facility to prevent a release of hazardous waste. *Case submitted by D. Yniguez.*
- **Classis Cosmetics** in Chatsworth settled for failure to properly manage and dispose of empty containers. *Case submitted by S. Townsend.*
- **Gardena Specialized Processing** was fined for treating hazardous waste with unapproved unlisted chemical. *Case submitted by G. To.*
- **Cost Reductions** in Northridge settled for unauthorized disposal of hazardous waste to the trash. *Case submitted by D. Yniguez.*
- **Pro Automotive Center, One Stop Auto Repair, Franco's Grinding and Specialist on Japanese Cars** in South Gate were fined for failure to recertify the annual chemical inventory. *Cases submitted by C. Ogunnaya.*
- **Arroyo Auto Dismantling** in Sun Valley settled for the unauthorized disposal of contaminated absorbent to the trash. *Case submitted by J. Holwager.*

Total Fine and Penalties= $98,590.00

Low-Threat UST Tank Closure Policy
By Richard Clark

The California Office of Administrative Law (OAL) recently approved the State Water Resource Control Board (SWRCB) Resolution 2012-0016, known as the Low-Threat Underground Storage Tank (UST) Closure Policy. Basically, the purpose of this policy is to expedite the cleanup and closure of petroleum fuel releases at UST sites in California by providing "low-threat" closure criteria that may be applicable to many such sites in Los Angeles County. This criteria recognizes that petroleum fuels that are released to soil and/or groundwater naturally attenuate in the subsurface environment through adsorption, dispersion, dilution, volatilization, and biological degradation. In fact, natural biodegradation of petroleum products distinguishes them from other common hazardous materials (such as chlorinated solvents) that are more resistant to natural biodegradation. Therefore, low to even high concentrations of petroleum fuel may be left in the subsurface and not pose a significant risk to human health or the environment as long as the general conditions of closure criteria are met, which include the following:

The release consists only of petroleum. Sites with releases of hazardous materials other than petroleum (or with releases of petroleum comingled with other hazardous materials, such as solvents) are not valid sites for low-risk closure. According to the policy, "Petroleum" includes crude oil, motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents and used oils, including any additives and blending agents such as oxygenates contained in the formulation of the substances.

The primary release has been stopped. In order for a site to be eligible for low-risk closure, the onsite release (leak) has to be stopped. Meaning, the leaking UST or "appurtenant structure" (e.g., pipe) has to be removed, repaired or replaced.

The secondary source (e.g., free product) has been removed to the extent practicable. A "secondary source" is defined as petroleum-impacted soil or groundwater located at or immediately beneath the point of release from the primary source. For example, a plume of gasoline floating on the groundwater beneath the site is a secondary source, which has to be removed to the extent practicable. Meaning, any free product present in the subsurface has to be removed in a manner that minimizes the spread of petroleum into previously uncontaminated zones by using recovery and disposal techniques appropriate to the hydro-geologic conditions at the site.

The petroleum release is located within the service area of a public water system. If the occupants of a site impacted by petroleum receive their drinking water from a public water system, then the site is eligible for low-risk closure. An impacted site with an onsite shallow groundwater drinking well would likely not be eligible for low-risk closure.

Soil and groundwater have been tested for methyl tert-butyl ether (MTBE) and results reported in accordance with Health and Safety Code section 25296.15. MTBE is a chemical additive (octane enhancer) in gasoline. Soil and groundwater at sites impacted by gasoline must be tested for MTBE and the results reported to the local Regional Water Quality Control Board (RWQCB). Typically, sites with MTBE concentrations in groundwater less than 1,000 micrograms per liter (parts per billion) are eligible for low-risk closure.

Nuisance as defined by the California Water Code section 13050 does not exist at the site. Water Code section 13050 (m) defines "nuisance" as anything which meets all of the following requirements: (1) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of the property, so as to interfere with the comfortable enjoyment of life or property. (2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal. (3) Occurs during, or as a result of, the treatment or disposal of wastes.

A conceptual site model that assesses the nature, extent, and mobility of the release has been developed. The conceptual site model (CSM) is a technical document produced by qualified geologists, engineers, toxicologist, or other environmental professionals and is reviewed by governmental oversight agencies to determine conformance of the CSM with applicable criteria in the low-risk policy. The CSM establishes the source and attributes of the petroleum release, describes all the affected media (including soil, groundwater and soil vapor). It also describes local geology, hydrogeology and other physical and biological site characteristics that affect contaminant environmental transport and fate and identifies all confirmed and potential contaminant receptors (including water supply wells, surface water bodies, structures and their inhabitants).

The above summary of the recently approved Low-Threat UST Tank Closure Policy is concise, simplified and incomplete. Other pertinent "media-specific criteria" (i.e., groundwater, vapor intrusion to indoor air, and direct contact/outdoor air exposure) is an integral part of the low-risk policy which can be reviewed at the SWRCB website at http://www.swrcb.ca.gov/water_issues/programs/ust/lt_cls_plcy.shtml.

Division Drill
By Mario Tresierras

The Health Hazardous Materials Division (HHMD) began its third annual drill on May 15, 2012. The three day drill was designed to enhance inspector knowledge of threat assessment, improve skills to monitor and detect chemicals, enhance one's ability to perform size up, mitigate and abate hazardous materials incidents. The first day of the drill was held at Department Headquarters. Training was provided by the Los Angeles County Sheriff's Haz Mat Unit on chemical, biological, radiological and nuclear threat assessments. A review of Hazardous Categorization procedures and a hands-on exercise were conducted. The latest detection equipment was reviewed by a representative from Fisher Scientific. Members of Haz Mat Task Force 43's participated by reviewing and demonstrating the use of the Sperian Warrior SCBAs.

Day two consisted of classroom training at the HHMD headquarters located in the City of Commerce. Staff attended four different lectures on sampling, entry, chemistry and monitoring equipment. The sampling class included practical application of plugging and patching, drum up lifting techniques and chain of custody requirements. Day three was held at the Department's Del Valle Training Center. Participants were divided into four groups. Each group went through four different scenarios to develop their skills in dealing with earthquakes and other natural or man-made disasters.

The field exercise challenged each group to coordinate, identify, mitigate, and abate the simulated incident. These scenarios consisted of a "man down", plug and patch, "white powder" (biological agent), inventory and search operation. The final attraction was an obstacle course that utilized the new state of the art training facility of Del Valle. Many of the props that utilized sound, movement and a reaction at the plating tank kept all participants engaged and captivated. The HHMD Managers and Chief Jones also suited up in chemical protective suits to experience the unique challenges of the obstacle course. The drill was completed without injury and was considered a success!

Envision Update
By John Vincent

Beginning January 1, 2013, the California Environmental Reporting System (CERS) is going to be implemented and will require every Unified Program Agency (UPA) to report electronically to the California Environmental Protection Agency (Cal-EPA) their Unified Program (UP) information such as hazardous materials inventory, violation data recording and underground storage tank information.

To keep up with the new CERS and Title 27 requirements, Decade Software engineers have developed a new CERS compatible Envision Version 4.6 with the help of an external program or "wizard," which is capable of uploading and downloading all required UP information to and from the Certified Unified Program Agencies (CUPA) database and CERS. Additionally, this version 4.6 will have an electronic field inspection system (eFIS) which will eliminate 95 percent of the paperwork involved in writing the Notice of Violations. Currently, there is a test version of Envision 4.6 at the Health Hazardous Materials Division's headquarters. Administration and planning staff have been testing, looking for problems and changes in the program which will require new procedures in program navigation, data entry and information reporting.

With this new Envision upgrade, one can expect some changes in procedures with regards to daily entries, data management and research. This change will be beneficial to the Division and

will reduce, if not eliminate, problems that we have experienced from the old version of Envision. Overall, it will allow seamless exchange of information between CERS and businesses' databases, develop State mandated annual reports and facilitate the implementation of eFIS. Look for changes early next year.

THE 15TH ANNUAL CALIFORNIA UNIFIED PROGRAM AGENCY (CUPA) CONFERENCE

The next CUPA conference will be held at Garden Grove Hyatt Hotel located at 11999 S. Harbor Blvd., Garden Grove, CA 92840 on February 4-7, 2013. This will be a great opportunity again to learn about our profession, update our knowledge and network with the experts in the field of hazmat, health and the environment.

For further information, go to: http://calcupa.net.

spotlight on health

Safety in the Face of Uncertainty
By Dan Zenarosa

Today, there are over 84,000 chemicals on the Environmental Protection Agency's (EPA) chemical inventory, but less than two percent of them have been tested. The Toxic Substances and Control Act (TSCA) of 1976 does not require the EPA to test for potential toxic effects of chemicals on their own initiative. Instead, under Section 4 of the Act, EPA requires testing of chemicals by manufacturers, importers, and processors where risks or exposures of concern are found. However, if the chemical manufacturer does not submit data about the hazards and exposures from their product, then no risk assessment is made. When there is no risk, no testing can be required. The EPA cannot take any regulatory action regarding a suspected harmful substance until it has evidence that it poses an "unreasonable risk" of injury to human health or the environment. The result is that existing chemicals are considered safe until proven otherwise. In contrast, the European parliament on December 13, 2006, enacted the Registration, Evaluation, Authorization and Restriction of Chemical Substances, or REACH, wherein chemical companies have to prove their substances are harmless before reaching the market. The burden of proof that the chemicals are safe rests on the chemical manufacturers and not on the public. This law eliminates the dangers of untested, unregistered and unregulated chemicals in the market.

In the United States, the costs of inaction have been incredibly high as we've seen in the case of tobacco, lead and asbestos. The inactivity or the slow response to environmental and health problems due to scientific uncertainty, gave rise to Precautionary Principle in making environmental decisions. This concept was formalized in 1992 at the United Nations Conference on Environment and Development which stipulates that, "when an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically." The idea is to be "forecaring," to act with foresight, to err on the side of caution, to look before you leap, to follow the tenets of the Hippocratic Oath not to do harm and to observe preventive measures to protect oneself. What is unique about this principle is that it does not ask how much harm is acceptable. But instead, it asks how much harm is avoidable or how little harm is possible.

Photo: courtesy of Center for Disease Control

The concept is gaining wide acceptance. On March 23, 1999, the Los Angeles Unified School District decided to withdraw pesticides from their pest management program and instead used non-chemical method which was the least harmful way to control pests. In 2003, The California EPA Advisory Committee on Environmental Justice officially recognize the importance of precaution when developing and implementing their regulatory program and that it is not necessary or appropriate to wait for actual, measurable harm to public health or the environment before evaluating alternatives that can prevent or minimize harm. On August 4, 2003, the city of San Francisco consolidated 11 existing laws in their Environment Code following the precautionary principle.

The European Union ban on American beef treated with hormones is based on the precautionary principle of "taking protective action before there is complete scientific proof of risk." The Federal Aviation Administration took precautionary action when it banned the use of cell phones and electronic devices at takeoff and landing, based on a single study that suggested these devices might interfere with a plane's electronic system.

Opponents of the precautionary principle argue that this principle leads to decisions not based on "sound science." The problem very often is that long before the science has come in, the harm has already been done and once technology or the product has entered the marketplace, the burden of bringing in that science typically falls on the public rather than on the companies selling it.

Until science and the quantitative risk assessment can provide clear answers to today's most pressing issues affecting health and the environment, the practice of taking precaution in the face of scientific uncertainty is life saving.

Featuring : Data Operation Unit
By Rebecca Martinez

The Data Operations Unit (DOU) handles the paperwork and data entry of approximately 14,400 facility information that are permitted within the Los Angeles County. This consists of the facility and owner information, the chemical inventory, contingency plan and site map which are submitted yearly by handlers of hazardous materials to the Health Hazardous Materials Division.

With the coming of California Environmental Reporting System (CERS) in January 2013, the work of the DOU staff will drastically change since submission of required unified program information will be coursed electronically to the CERS website and will be synchronized with our database in Envision.